

In the claims:

1. (currently amended) A method for disrupting survival signaling from ~~the~~ a bone marrow microenvironment to single breast cancer cells or breast cancer cell micrometastases, said method comprising administering an agent effective in blocking the interaction of an integrin with an extracellular matrix protein of the bone marrow microenvironment or that downregulates expression of said integrin, wherein the integrin is alpha 5 beta 1 and the extracellular matrix protein is fibronectin, and wherein the method results in sensitizing single breast cancer cells or breast cancer cell micrometastases to chemotherapy, biological therapies or radiation therapy of primary tumors, cancer metastases or micrometastases ~~and hyperproliferative disorders~~ in a mammal.
2. (canceled)
3. (canceled).
4. (canceled).
5. (previously presented) The method of claim 1, wherein the agent is selected from the group consisting of an antibody specific for an integrin, a blocking peptide, and a modified peptide effective to disrupt interaction of the integrin with the extracellular matrix.
6. (canceled)
7. (withdrawn) The method of claim 1, wherein the agent is all trans retinoic acid or a retinoic acid derivative.
8. (withdrawn) The method of claim 1, wherein the agent is a kinase inhibitor or a transcription inhibitor.

9. (currently amended) The method of claim 1, wherein the method comprises blocking survival signaling initiated by ligation of alpha 5 beta 1 integrins by microenvironment proteins.
10. (withdrawn) The method of claim 1, wherein the agent is an inhibitor of a kinase, said kinase selected from the group consisting of MEP/MAP kinase, p38, RhoA, Rho kinase, PI3 kinase, PKC , and PKA.
11. (withdrawn) The method of claim 10, wherein the inhibitor is selected from the group consisting of LY294002, UO 126, AG82, Y27632, SB203580, PD169316, PD98059, RO318220, and a C3 transferase inhibitor.
12. (currently amended) A method of inhibiting cellular proliferation or inducing cell death or cellular differentiation of single breast cancer cells or breast cancer cell micrometastases or for treating a single breast cancer cell or breast cancer micrometastases ~~or a hyperproliferative disorder~~ in a mammal comprising administering an agent capable of downregulating expression of an integrin or blocking the binding of an integrin to an extracellular matrix protein of the bone marrow microenvironment, wherein the integrin is alpha 5 beta 1 and the extracellular matrix protein is fibronectin, and wherein the method results in inhibiting cellular proliferation or inducing cell death or cellular differentiation of the single breast cancer cell or breast cancer cell micrometastases or in treating the single breast cancer cell or breast cancer cell micrometastases.
13. (canceled).
- 14-46. (canceled).

47. (withdrawn) The method of claim 12, wherein the agent is a kinase inhibitor or a transcription inhibitor, and wherein the kinase inhibitor or transcription inhibitor is administered prior to, or concurrent with chemotherapy or radiation therapy.

48. (canceled)

49. (canceled).

50. (withdrawn) The method of claim 47, wherein the kinase inhibitor or transcription inhibitor downregulates expression of alpha 5 beta 1 integrin or phosphorylation of Akt.

51. (withdrawn) The method of claim 47, wherein the kinase or transcription inhibitor is selected from the group consisting of inhibitors of MEP/MAP kinase, p38, RhoA, Rho kinase, PI3 kinase, PKC, and PKA.

52. (withdrawn) The method of claim 51, wherein the inhibitor is selected from the group consisting of LY294002, UO 126, AG82, Y27632, SB203580, PD169316, PD98059, RO318220, and a 3 transferase inhibitor.

53. (previously presented) The method of claim 12, comprising administering an antibody effective to block integrin alpha 5 beta 1 or a peptide effective to block fibronectin or a modified peptide effective to block fibronectin, or any combinations thereof, wherein the antibody or peptide is administered prior to or concurrent with a chemotherapeutic agent or radiation therapy.

54. (currently amended) The method of claim 12 ~~50~~, wherein the method results in sensitizing to, or potentiating chemotherapy or radiation therapy in mammals undergoing treatment for breast a cancer ~~or a hyperproliferative disorder~~.

55. (withdrawn) A pharmaceutical composition comprising an agent capable of downregulating expression of alpha 5 beta 1 integrins or capable of inhibiting the binding of the integrins to the extracellular matrix, and a pharmaceutically acceptable carrier.

56. (withdrawn) The composition of claim 55, wherein the agent is selected from the group consisting of a kinase inhibitor and a transcription inhibitor.

57. (withdrawn) The composition of claim 56, wherein the kinase or transcription inhibitor is selected from the group consisting of inhibitors of MEP/MAP kinase, p38, RhoA, Rho kinase, PI3 kinase, PKC, and PKA.

58. (withdrawn) The composition of claim 57, wherein the inhibitor is selected from the group consisting of LY294002, UO 126, AG82, Y27632, SB203580, PD169316, PD98059, RO318220, and a 3 transferase inhibitor.

59. (withdrawn) The composition of claim 55, wherein the agent is selected from the group consisting of an antibody effective to block integrin alpha 5 beta 1, a peptide effective to block fibronectin, a modified peptide effective to block fibronectin, and any combinations thereof, wherein the antibody or peptide is administered prior to or concurrent with a chemotherapeutic agent or radiation therapy.